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Date of Deposit: ~~July 11, 2006~~ JULY 18, 2006 RCF
Depositor: Robert Faber

O I P E (Signature & date)

JUL 20 2006

PATENT & TRADEMARK OFFICE
U.S. Patent and Trademark Office
The application of

17 RCF
Date: July 18, 2006

Huilong Zhu

Group Art Unit: 2826

Serial No: 10/710,244

Examiner: Fazli Erdem

Filed: 06/29/2004

International Business Machines Corporation
2070 Route 52
Hopewell Junction, NY 12533

TITLE: STRUCTURES AND METHODS FOR MANUFACTURING P-TYPE MOSFET WITH GRADED EMBEDDED SILICON-GERMANIUM SOURCE-DRAIN AND/OR EXTENSION

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the duty of disclosure set forth in 37 C.F.R. 1.56, and further pursuant to the provisions of 37 C.F.R. 1.97 and 1.98, applicants hereby respectfully submit copies of the US and non-US patents and publications as listed on Form PTO-1449, attached hereto.

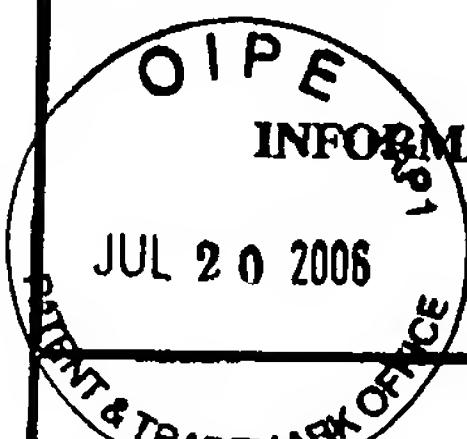
In citing these documents, no representation is made nor intended as to the pertinency or non-pertinency of the art, that better art than that listed is not available, or that other art is not applicable.

The Commissioner is hereby authorized to charge any and all fees for this submission to
Deposit Account No. 09-0458.

Respectfully submitted,
Huilong Zhu

By

Joseph P. Abate
Attorney for Applicant
Registration No. 30,238
Telephone No. 845-894-4633
Fax No. 845-892-6363


INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

JUL 20 2006

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|--------------------------|-----------------|--------------------|------------|
| Docket Number (Optional) | EIS920040116US1 | Application Number | 10/710,244 |
| Applicant(s) | Huilong Zhu | | |
| Filing Date | 06/29/2004 | Group Art Unit | 2811 |
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U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|---------|---------------|-------|----------|----------------------------|
| | | 3,602,841 | 8-31-71 | McGroddy | | | |
| | | 4,665,415 | 5-12-87 | Esaki, et al. | | | |
| | | 4,853,076 | 8-1-89 | Tsaur, et al. | | | |
| | | 4,855,245 | 8-8-89 | Neppl, et al. | | | |
| | | 4,952,524 | 8-28-90 | Lee, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|---------|-------------------|-------|----------|----------------------------|
| | | US 2001/0009784 A1 | 7-26-01 | Ma, et al. | | | |
| | | US 2002/0063292 A1 | 5-30-02 | Armstrong, et al. | | | |
| | | US 2002/0074598 A1 | 6-20-02 | Doyle, et al. | | | |
| | | US 2002/0086472 | 7-4-02 | Roberds, et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translator | |
|-----|-----------------|---------|---------|-------|----------|------------|----|
| | | | | | | YES | NO |
| | JP64-76755 | 03-1989 | Japan | | | | |
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OTHER DOCUMENTS
(Including Author, Title, Date, Pertinent Pages, Etc.)

Kern Rim, et al., "Transconductance Enhancement in Deep Submicron Strained-Si n-MOSFETs". International Electron Devices Meeting, 26, 8, 1, IEEE, September 1998.

Kern Rim, et al., "Characteristics and Device Design of Sub-100 nm Strained Si N- and PMOSFETs." 2002 Symposium on VLSI Technology Digest of Technical Papers, IEEE, pp. 98-99.

EXAMINER
DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

| | |
|--|----------------------------------|
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| Applicant(s) Huilong Zhu | |
| Filing Date 06/29/2004 | Group Art Unit 2811 |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|--------------------|-------|----------|-------------------------------|
| | | 5,134,085 | 7-28-92 | Gilgen, et al. | | | |
| | | 5,310,446 | 5-10-94 | Konishi, et al. | | | |
| | | 5,354,695 | 10-11-94 | Leedy | | | |
| | | 5,371,399 | 12-6-94 | Burroughes, et al. | | | |
| | | 5,391,510 | 2-21-95 | Hsu, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|-----------|--------------------|-------|----------|-------------------------------|
| | | US 2003/0057184 A1 | 3-27-03 | Yu, et al. | | | |
| | | US 2003/0067035 A1 | 4-10-03 | Tews, et al. | | | |
| | | US 2004/0113174 A1 | 6-17-2004 | Chidambaram et al. | | | |
| | | US 2004/0113217 A1 | 6-17-2004 | Chidambaram et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

Shinya Ito, et al., "Mechanical Stress Effect of Etch-Stop Nitride and its Impact on Deep Submicron Transistor Design." International Electron Devices Meeting, 10.7.1, IEEE, April 2000.

A. Shimizu, et al., "Local Mechanical-Stress Control (LMC): A New Technique for CMOS-Performance Enhancement." International Electron Devices Meeting, IEEE, March 2001.

EXAMINER

DATE CONSIDERED

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| | |
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| 06/29/2004 | 2811 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|------------------|-----|-----------------|----------|---------------------|-------|----------|----------------------------|
| | | 5,459,346 | 10-17-95 | Asakawa, et al. | | | |
| | | 5,471,948 | 12-5-95 | Burroughes, et al. | | | |
| | | 5,557,122 | 9-17-96 | Shrivastava, et al. | | | |
| | | 5,561,302 | 10-1-96 | Candelaria | | | |
| | | 5,565,697 | 10-15-96 | Asakawa, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|------------------|-----|--------------------|------------|--------------------|-------|----------|----------------------------|
| | | US 2004/0238914 A1 | 12-2-2004 | Deshpande et al. | | | |
| | | US 2004/0262784 A1 | 12-30-2004 | Doris et al. | | | |
| | | US 2005/0040460 A1 | 2-24-2005 | Chidambaram et al. | | | |
| | | US 2005/0082634 A1 | 4-21-2005 | Doris et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

K. Ota, et al., "Novel Locally Strained Channel Technique for High Performance 55nm CMOS." International Electron Devices Meeting, 2.2.1, IEEE, February 2002.

G. Zhang, et al., "A New 'Mixed-Mode' Reliability Degradation Mechanism in Advanced Si and SiGe Bipolar Transistors." IEEE Transactions on Electron Devices, vol. 49, no. 12, December 2002, pp. 2151-56.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|-----------|-------|----------|----------------------------|
| | | 5,571,741 | 11-5-96 | Leedy | | | |
| | | 5,592,007 | 1-7-97 | Leedy | | | |
| | | 5,592,018 | 1-7-97 | Leedy | | | |
| | | 5,670,798 | 9-23-97 | Schetzina | | | |
| | | 5,679,965 | 10-21-97 | Schetzina | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|-----------|--------------|-------|----------|----------------------------|
| | | US 2005/0093030 A1 | 5-5-2005 | Doris et al. | | | |
| | | US 2005/0098829 A1 | 5-12-2005 | Doris et al. | | | |
| | | US 2005/0106799 A1 | 5-19-2005 | Doris et al. | | | |
| | | US 2005/0145954 A1 | 7-7-2005 | Zhu et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translates | |
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

H.S. Momose, et al., "Temperature Dependence of Emitter-Base Reverse Stress Degradation and its Mechanism Analyzed by MOS Structures." Paper 6.2, pp. 140-143.

C.J. Huang, et al., "Temperature Dependence and Post-Stress Recovery of Hot Electron Degradation Effects in Bipolar Transistors." IEEE 1991 Bipolar Circuits and Technology Meeting 7.5, pp. 170-173.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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(Use several sheets if necessary)

| | |
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U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|----------------|-------|----------|-------------------------------|
| | | 5,683,934 | 11-4-97 | Candelaria | | | |
| | | 5,840,593 | 11-24-98 | Leedy | | | |
| | | 5,861,651 | 1-19-99 | Brasen, et al. | | | |
| | | 5,880,040 | 3-9-99 | Sun, et al. | | | |
| | | 5,940,716 | 8-17-99 | Jin, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|------------|------------------|-------|----------|-------------------------------|
| | | US 2005/0148146 A1 | 7-7-2005 | Doris et al. | | | |
| | | US 2005/0194699 A1 | 9-8-2005 | Belyansky et al. | | | |
| | | US 2005/0236668 A1 | 10-27-2005 | Zhu et al. | | | |
| | | US 2005/0245017 A1 | 11-3-2005 | Belyansky et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|-----|-----------------|------|---------|-------|----------|-------------|----|
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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

S.R. Sheng, et al., "Degradation and Recovery of SiGe HBTs Following Radiation and Hot-Carrier Stressing." Pp. 14-15.

Z. Yang, et al., "Avalanche Current Induced Hot Carrier Degradation in 200 GHz SiGe Heterojunction Bipolar Transistors." Pp. 1-5.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Docket Number (Optional)

FIS920040116US1

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Applicant(s)

Hui long Zhu

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Group Art Unit

2811

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|---------------|-------|----------|----------------------------|
| | | 5,940,736 | 8-17-99 | Brady, et al. | | | |
| | | 5,946,559 | 8-31-99 | Leedy | | | |
| | | 5,960,297 | 9-28-99 | Saki | | | |
| | | 5,989,978 | 11-23-99 | Peldous | | | |
| | | 6,008,126 | 12-28-99 | Leedy | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|------------|--------------------|-------|----------|----------------------------|
| | | US 2006/0060925 A1 | 3-23-2006 | Doris et al. | | | |
| | | US 2005/0280051 A1 | 12-22-2005 | Chidambaram et al. | | | |
| | | US 2005/0282325 A1 | 12-22-2005 | Belyansky et al. | | | |
| | | US 2006/0027868 A1 | 2-9-2006 | Doris et al. | | | |

FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

H. Li, et al., "Design of W-Band VCOs with High Output Power for Potential Application in 77 GHz Automotive Radar Systems." 2003 IEEE GaAs Digest, pp. 263-66.

H. Warzer, et al., "Annealing of Degraded n-pn-Transistors- Mechanisms and Modeling." IEEE Transactions on Electron Devices, vol. 41, no. 4, April 1994, pp. 533-38.

EXAMINER

DATE CONSIDERED

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U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|---------|-------------------|-------|----------|----------------------------|
| | | 6,025,280 | 2-15-00 | Brady, et al. | | | |
| | | 6,046,464 | 4-4-00 | Schetzina | | | |
| | | 6,066,545 | 5-23-00 | Doshi, et al. | | | |
| | | 6,090,684 | 7-18-00 | Ishitsuka, et al. | | | |
| | | 6,107,143 | 8-22-00 | Park, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|--------------------|-----------|--------------|-------|----------|----------------------------|
| | | US 2006/0057787 A1 | 3-16-2006 | Doris et al. | | | |
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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

B. Doyle, et al., "Recovery of Hot-Carrier Damage in Reoxidized Nitrided Oxide MOSFETs." IEEE Electron Device Letters, vol. 13, no. 1, January 1992, pp. 38-40.

H.S. Momose, et al., "Analysis of the Temperature Dependence of Hot-Carrier-Induced Degradation in Bipolar Transistors for Bi-CMOS." IEEE Transactions on Electron Devices, vol. 41, no. 6, June 1994, pp. 978-987.

EXAMINER

DATE CONSIDERED

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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|------------------|-----|-----------------|----------|----------------|-------|----------|----------------------------|
| | | 6,117,722 | 9-12-00 | Wuu, et al. | | | |
| | | 6,133,071 | 10-17-00 | Nagai | | | |
| | | 6,165,383 | 12-26-00 | Chou | | | |
| | | 6,221,735 | 4-24-01 | Manley, et al. | | | |
| | | 6,228,694 | 5-8-01 | Doyle, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

M. Khater, et al., "SiGe HBT Technology with Fmax/Ft = 350/300 GHz and Gate Delay Below 3.3 ps". 2004 IEEE, 4 pages.

J.C. Bean, et al., "GEx SI 1-x/Si Strained-Layer Superlattice Grown by Molecular Beam Epitaxy". J. Vac. Sci. Technol. A 2(2), Apr.-June 1984, pp. 436-440.

| | |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

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| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|------------------|-----|-----------------|---------|---------------|-------|----------|----------------------------|
| | | 6,246,095 | 6-12-01 | Brady, et al. | | | |
| | | 6,255,169 | 7-3-01 | Li, et al. | | | |
| | | 6,261,964 | 7-17-01 | Wu, et al. | | | |
| | | 6,265,317 | 7-24-01 | Chiu, et al. | | | |
| | | 6,274,444 | 8-14-01 | Wang | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

J.H. Van Der Merwe, "Regular Articles". Journal of Applied Physics, Volume 34, No. 1, January 1963, pp. 117-122.

J.W. Matthews, et al., "Defects in Epitaxial Multilayers". Journal of Crystal Growth 27 (1974), pp. 118-125.

EXAMINER

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|-------------------|-----|-----------------|----------|----------------|-------|----------|-------------------------------|
| | | 6,281,532 | 8-28-01 | Doyle, et al. | | | |
| | | 6,284,623 | 9-4-01 | Zhang, et al. | | | |
| | | 6,284,626 | 9-4-01 | Klm | | | |
| | | 6,319,794 | 11-20-01 | Akatsu, et al. | | | |
| | | 6,361,885 | 3-26-02 | Chou | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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OTHER DOCUMENTS *(Including Author, Title, Date, Permanent Pages, Etc.)*

Subramanian S. Iyer, et al., "Heterojunction Bipolar Transistors Using Si-Ge Alloys". IEEE Transactions on Electron Devices, Vol. 36, No. 10, October 1989, pp. 2043-2064.

R.H.M. Van De Leur, et al., "Critical Thickness for Pseudomorphic Growth of Si/Ge Alloys and Superlattices". J. Appl. Phys. 64 (6), 15 September 1988, pp. 3043-3050.

| | |
|---|-----------------|
| EXAMINER | DATE CONSIDERED |
| EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |

INFORMATION DISCLOSURE CITATION
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| | |
|---|----------------------------------|
| Docket Number (Optional) EIS920040116US1 | Application Number 10/710,244 |
| Applicant(s) Huilong Zhu | |
| Filing Date 06/29/2004 | Group Art Unit 2811 |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|---------|-----------------|-------|----------|----------------------------|
| | | 6,362,082 | 3-26-02 | Doyle, et al. | | | |
| | | 6,368,931 | 4-9-02 | Kuhn, et al. | | | |
| | | 6,403,486 | 6-11-02 | Lou | | | |
| | | 6,403,975 | 6-11-02 | Brunner, et al. | | | |
| | | 6,406,973 | 6-18-02 | Lee | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

D.C. Houghton, et al., "Equilibrium Critical Thickness for Si 1-x Ge Strained Layers on (100) Si". Appl. Phys. Lett. 56 (5), 29 January 1990, pp. 460-462.

Q. Ouyang et al., "Two-Dimensional Bandgap Engineering in a Novel Si/SiGe pMOSFET with Enhanced Device Performance and Scalability". 2000 IEEE, pp. 151-154.

EXAMINER

DATE CONSIDERED

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| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|-----------------|-------|----------|----------------------------|
| | | 6,461,936 | 10-8-02 | von Ehrenwall | | | |
| | | 6,476,462 | 11-5-02 | Shimizu, et al. | | | |
| | | 6,483,171 | 11-19-02 | Forbes, et al. | | | |
| | | 6,493,497 | 12-10-02 | Ramdani, et al. | | | |
| | | 6,498,358 | 12-24-02 | Lach, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|----------|---------------|-------|----------|-------------------------------|
| | | 6,501,121 | 12-31-02 | Yu, et al. | | | |
| | | 6,506,652 | 1-14-03 | Jan, et al. | | | |
| | | 6,509,618 | 1-21-03 | Jan, et al. | | | |
| | | 6,521,964 | 2-18-03 | Jan, et al. | | | |
| | | 6,531,369 | 3-11-03 | Ozkan, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
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U.S. PATENT DOCUMENTS

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|-------------------|-----|-----------------|----------|----------------|-------|----------|----------------------------|
| | | 6,531,740 | 3-11-03 | Bosco, et al. | | | |
| | | 6,621,392 | 9-16-03 | Volant, et al. | | | |
| | | 6,635,506 | 10-21-03 | Volant, et al. | | | |
| | | 6,831,292 | 12-14-04 | Currie, et al. | | | |
| | | 6,717,216 | 4-6-04 | Doris, et al. | | | |

U.S. PATENT APPLICATION PUBLICATIONS

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| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----|-----------------|------------|--------------------|-------|----------|----------------------------|
| | | 6,825,529 | 11-30-2004 | Chidambarro et al. | | | |
| | | 7,015,082 | 3-21-2006 | Doris et al. | | | |
| | | 6,974,981 | 12-13-2005 | Chidambarro et al. | | | |
| | | 6,977,194 | 12-20-2005 | Belyansky et al. | | | |
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U.S. PATENT APPLICATION PUBLICATIONS

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